M/027/007

State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

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January 18, 1996

CERTIFIED MAIL
(Return Receipt Requested)

Mr. Ed King
Jumbo Mining Company
6303 Fern Spring Cove
Austin, TX 78730

Dear Mr. King:

Subject: Permitting Requirements for Resuming Operations at Drum Mine

Dave Hartshorn and Evert Lawton met with us on December 20, 1995 and discussed plans to resume mining activities at the Drum Mine, using new, permitted facilities. As you are aware, these new facilities must obtain a ground water discharge permit, as well as, a construction permit from this office before construction may begin.

We are in agreement that the characteristics of the mine site make it impractical to monitor ground water to satisfy the compliance monitoring requirements associated with the ground water discharge permit. Therefore, constructed facilities, such as leach pads and process water ponds, must have a design which can assure us, on a continuing basis, that pollutants are not being released. Dave Rupp, from our Design Evaluation Section, is providing guidance in a separate letter on how your proposed designs may meet this requirement. By employing these types of designs, the need for extensive hydrogeologic investigations related to ground water monitoring for these facilities should be eliminated.

In addition, according to the provisions of UAC R317-6-6.3P (regulations enclosed), the scope of the ground water discharge permit will address previously existing situations at the site which may pose a threat to ground water, as well as any new potential threats posed by future mining operations.

Previously, we had identified the existing abandoned leach pads and associated ponds and pipelines as a source of possible discharges to ground water. It is our understanding that you intend to evaluate the value remaining in the ore on these pads and, when economically feasible, re-stack the ore on new pads for additional leaching. Some of the ore will probably not be economical for leaching. Your ground water discharge permit application must contain a plan to minimize discharges of contaminants to the subsurface from ore remaining on the existing leach pads, or demonstrate conclusively that standard reclamation practices will not result in unacceptable releases of contaminants.

We also understand that you plan to mine new sources of ore for leaching. Although most of this material will probably be oxidized, there is a potential that sulfide-bearing rock in waste piles could cause a discharge of pollutants to ground water as it weathers over time. The permit

application must contain a plan to evaluate whether rock exposed by the mining operations will cause this type of problem. If significant quantities of sulfide-bearing rock, or other rock which may leach pollutants are exposed by the mining operation, it must be managed properly to prevent a discharge to ground water.

For both, reclamation of the existing leach pads, and waste rock management, the effectiveness of designs of caps, or other features to be used for ground water protection which is appropriate for the site's climate, may be demonstrated by the use of computer models, such as the HELP model for landfill design, or by other similar means. Modeling could also be used to justify whether special management of waste rock for ground water protection is needed at all.

As the current facility owner, you are responsible to take timely action to prevent contamination from the existing discharges from spreading further. We agree with the conclusion in your October 10, 1995 letter, that remediation is not needed for the localized perched aquifer at the site, however, contamination in this aquifer is indicative of discharges to the deep regional aquifer under the site. Your letter did not provide a plan, and timetable, for stopping these discharges as we requested in our June 15, 1995 letter. A complete ground water discharge permit application, which addresses all the issues noted in this letter, would satisfy our earlier requirements. Accordingly, to accomplish this in a timely manner, please submit a complete permit application within 90 days of receipt of this letter. If you do not wish to go forward with permitting the new facilities at this time, you must submit a conceptual plan and timetable for stopping the discharge from the existing facilities within 30 days of receipt of this letter, as requested in our June 15, 1995 letter.

A description of other types of information needed for a ground water discharge permit is contained in UAC R317-6-6.3 (regulations enclosed). Not all these categories need to be addressed, if you employ designs which allow for compliance monitoring by leak detection systems, rather than ground water monitoring.

Please contact me if you have any questions on information needed for the application.

Sincerely,

Mark T. Novak

Mark Novak, Environmental Scientist
Ground Water Protection Section

MN:wfm

Enclosure

cc: Dr. Evert Lawton
David Hartshorn, Drum Mine
Wayne Hedberg, DOGM
Rody Cox, BLM Fillmore Office
Central Utah Health Dept.

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FILE:JUMBO MINING